

TECMAR

the power behind the PC

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TECMAR

Yesterday & Today

Tecmar, Inc., the leading manufacturer of add-on peripherals and enhancements for the IBM PC and other personal computers, was incorporated in 1974. It was dedicated to a single product, but during the last nine years it has grown into a company which now offers scores of products for the microcomputer industry.

Tecmar's initial objective was to develop medical products. Martin Alpert, a trained physician and engineer, is the founder of the company along

with a group of investors. The company was set up to manufacture and deliver products for personal computers. The mechanisms were in place to create products very rapidly.

Demand for Tecmar boards increased in the late 1970's and into the eighties, predominantly through advertising in computer trade journals. The commitment to enter the computer market full time was made in April, 1981, just a few months before IBM announced plans to market a personal computer. Once the IBM announcement

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News: For Immediate Release

ADDITIONAL INFORMATION:

John Brandon
Tecmar, Inc.
(216) 349-0600
TLX: 466692

NEW PRODUCT
Color & B/W Photos
Available

**TECMAR'S NEW CAPTAINTM MULTI-FUNCTION BOARD IS ASSIGNED TO
IBM PC XT FOR NEW PORTS, GOOD TIMES, MORE MEMORIES.**

Tecmar, Inc. (Cleveland), now offers a multi-function board designed specifically for the IBM PC XT (also compatible with COMPAQTM and IBM Personal Computers). The CaptainTM, the newest of Tecmar's PC-MateTM line of add-on and add-in accessories for the IBM PC and certain compatible systems, is available for \$795 (suggested US resale) at participating Tecmar dealers.

Captain adds a great deal of capability and utility to the IBM PC XT. It adds 384K of RAM to the 256K that comes standard on the XT to bring it to its 640K maximum. Captain also adds parallel and serial ports, a battery-backed clock/calendar and facility for a PAL (programmable array logic) device. Tecmar also includes RAMSpoolerTM and SpeedDiskTM software.

Like all Tecmar products, Captain is completely compatible with IBM design standards. The serial port may be configured as COM1 or COM2 and the printer port as LPT1 or LPT2.

The clock/calendar (in conjunction with Auto Time software, included) automatically...

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Tecmar's initial objective was to develop medical products. Martin Alpert, a trained physician and engineer, is the founder of the company along with his wife, Carolyn. Combining their talents with a new idea in the pulmonary area, they pursued research which led to the design of the Pulmonary Diagnostic Instrument (PDI), an ingenious computer-based machine for diagnosing lung problems instantly. Certain components, however, weren't available for microprocessors, specifically analog-to-digital and digital-to-analog converters. These products were developed in a general sense for use in the PDI and for merchandising to the general public.

Tecmar correctly determined that the boards they built, which came in various shapes and sizes, could be used for other scientific research.

In addition, by doing work with the 8086 microprocessor, Tecmar was in an excellent posi-

tion to manufacture and deliver products for personal computers. The mechanisms were in place to create products very rapidly.

Demand for Tecmar boards increased in the late 1970's and into the eighties, predominantly through advertising in computer trade journals. The commitment to enter the computer market full time was made in April, 1981, just a few months before IBM announced plans to market a personal computer. Once the IBM announcement was made, a decision was finalized by Tecmar to focus its business primarily on the peripheral market of IBM.

Tecmar was totally prepared for October 7, 1981, the day IBM offered its new Personal Computer for sale. Subsequent to the purchase of the first two IBM Personal Computers sold in the U.S., it did not take long for the Tecmar engineers to discover exactly how to build interfaces for the system.

From October 7, 1981 through the end of November 1981, Tecmar designed and began marketing twenty (20) add-on boards for the IBM PC. The reaction from the market was overwhelming. Orders poured in for such items as a speech synthesizer for the blind, a high density

memory unit, and a board for controlling electrical appliances. Tecmar set a new precedent for the speed with which new products could be developed.

During 1982 fifty (50) more peripheral products were added to the PC-Mate line. By the end of 1983, there will be nearly 200 items in the product line. Tecmar has set an amazing record of introducing a product a week for many months.

And Tecmar's product failure rate for the past year has been an amazingly low 0.4%! This is at least in part due to Tecmar's maturity as a manufacturer; Tecmar now enters its tenth year of producing computer-related hardware.

To complement its traditional emphasis on the area most responsible for Tecmar's solid reputation in the PC market—Engineering — the company is significantly expanding its marketing and sales budgets. New sales offices are being established throughout the United States, staffed with Sales Executives whose primary focus is the support and training of Tecmar's ever-growing reseller team. New programs are being put into place to encourage the addition of selected distributors and dealers so that would-be purchasers of the Personal Computer can find the enhancements, full systems support and other 'systems' solutions inherent in the Tecmar product line.

Tecmar's expansion into international marketing has also accelerated with Tecmar products represented in dozens of countries. In Latin America, Asia, Australia, Africa, the Middle East and throughout Europe, organizations are displaying and discussing Tecmar products. Tecmar is represented in Canada by a stocking distributor.

Tecmar complements this coverage with an exhaustive advertising program in many journals. The Tecmar name has become synonymous with quality and functionality.

Tecmar's product line has both horizontal and vertical breadth making the company less vulnerable to marketplace vagaries. Tecmar products support the IBM PC and a substantial number of products function on systems such as Eagle, Columbia, T.I. Professional, Hyperion and Compaq. Tecmar also has products that support Apple systems and S-100 bus computers.

The product line extends well beyond memory and communications add-ons and peripherals. Numerous products such as the IEEE488 Interface support laboratory and experimental applications. Speech synthesis, voice recognition, and video interface products represent a variety of technologies and offer many options for professional or vocational applications. Graphics products support various scientific and business graphics needs. The number of various disk configurations has grown to thirty-two. Memory and multi-function boards now are provided in twenty-one different varieties.

Tecmar's recent announcement of an Ethernet-based local area network has received praises from the press and the market. ELAN, Extended Local Area Network, is in beta test and is scheduled for full release early in 1984. Thus, the Tecmar line contains something for everyone — at a price and quality that assures acceptance.

Of course, more growth means more people and more people mean more space. A dramatic move was mandated. So in June, 1983 Tecmar purchased a 104,000 square foot building. This expansion increases Tecmar's ability to respond to growth and market needs while providing a comfortable work environment for its employees.

Tecmar means people. Tecmar means quality. Tecmar means variety. Tecmar means functionality.

Tecmar means business.



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Captain adds a great deal of capability and utility to the IBM PC XT. It adds 384K of RAM to the 256K that comes standard on the XT to bring it to its 640K maximum. Captain also adds parallel and serial ports, a battery-backed clock/calendar and facility for a PAL (programmable array logic) device. Tecmar also includes RAMSpoolerTM and SpeedDiskTM software.

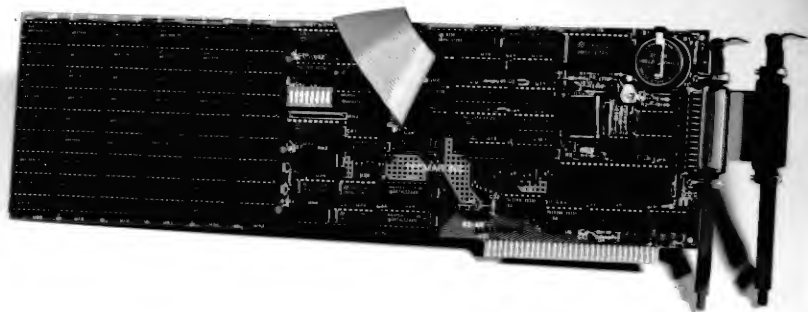
Like all Tecmar products, Captain is completely compatible with IBM design standards. The serial port may be configured as COM1 or COM2 and the printer port as LPT1 or LPT2.

The clock/calendar (in conjunction with Auto Time software, included) automatically sets the system time and date when the system is powered up. The backup battery maintains the correct time and date with power off for up to a year; it can be easily replaced without tools.

RAMSpooler (also, available separately for \$95 suggested US resale at participating Tecmar dealers) delegates a portion of system RAM to a print spooling function; it can be used with output to either serial or parallel ports.

SpeedDisk permits the allocation of a section of memory to a "virtual" disk drive, faster than true disks.

Tecmar has also announced that registered owners of 1stMATETM, 2ndMATETM, 3rdMATETM and CaptainTM multifunction cards will enjoy discounts worth hundreds of dollars toward elements of the company's new ELANTM integrated voice/data EthernetTM system for the PC and PC-XT.



Captain



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TECMAR ANNOUNCES TWO HALF-LENGTH BOARDS THAT RESPONDS TO IBM'S DEVELOPMENT OF THE SHORT SLOT

Tecmar, Inc. introduces Bosun, a powerful multi-purpose communications board that fits in the short slot of the "XT" model of the IBM Personal Computer. In addition, Tecmar is also providing Wave, another short slot board that expands the XT memory capacity to 512K.

The short slot, an architecture meant to increase the flexibility of the XT, is now provided with even greater capability with the new Tecmar offering.

Bosun bundles four popular expansion features onto the half-sized board. Bosun provides a serial port for controlling a modem, serial printer or other serial devices. The serial port connector is identical to the connector on the IBM async adaptor.

Bosun also gives you a parallel printer interface to the IBM printer (or equivalent) which is fully compatible with IBM printer software. Mounting hardware and cable are supplied without extra charges.

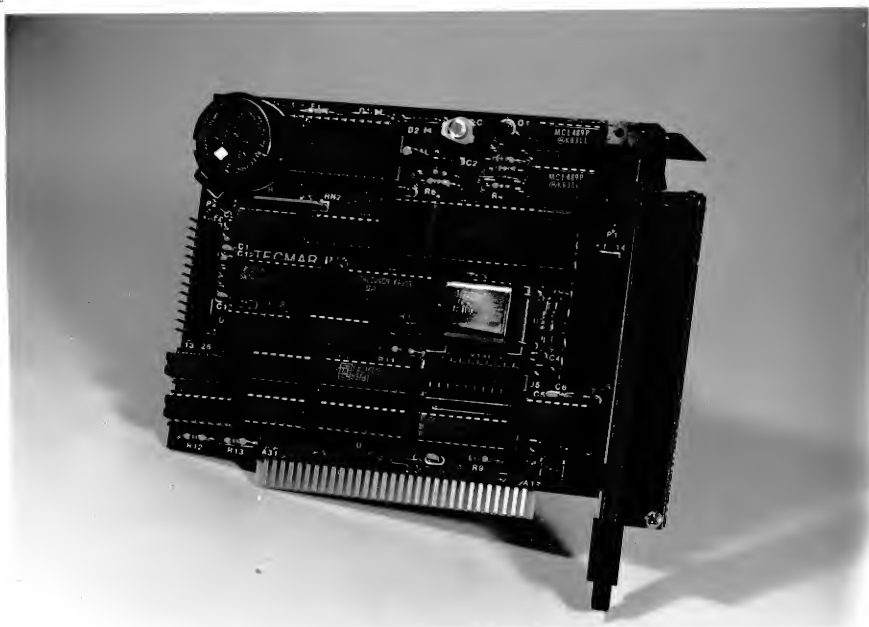
In addition, Bosun offers a clock/calendar to keep track of time and data. Accuracy and protection are maintained through the removable battery. Tecmar includes software for setting time as part of the Bosun offering.

Bosun accommodates a PAL (Programmable Array Logic) chip as an option. Its uses include protection of proprietary software and restriction of operations to specified computer units. This powerful option allows for security in a "need to know" environment.

RAMSpooler software is an added bonus with Bosun. RAMSpooler allows printing to become a background task, freeing your IBM XT to other than processing tasks. RAMSpooler uses a user-defineable block of RAM as the highspeed print buffer.

A compliment the Bosun board, Tecmar presents Wave, which adds up to 256K of RAM memory (in increments of 64K) also on a one half-length board.

Wave's growth flexibility is complimented by Tecmar's SpeedDisk software. SpeedDisk software directs some or all of memory available on Wave to simulate ultra high speed disk. Programs using many disk accesses can run up to twenty times faster using SpeedDisk. Separate versions are available for DOS versions 1.1 and 2.0.



WASUN

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WAVE

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ELAN, THE OFFICE OF THE FUTURE, TODAY

Tecmar, Inc., (Cleveland) recently announced a powerful new voice and data network built around the IBM Personal Computer and the Ethernet local area network. The ELAN Office Communications system is the 'total' link between people, machines and telephones; it will be available in three configurations - The SECRETARY, The MANAGER and The EXECUTIVE - from participating Tecmar dealers worldwide. Delivery is forecast for early in 1984.

ELAN relies on a specially-tailored hardware development, the Tecmar Ethernet Companion. This device, an ordinary-looking Personal Computer expansion board, performs the all-important conversion of voice signals to data signals, and back again. The ability to digitize speech, then reconstruct speech from stored data is central to many of the voice mail, message and telephone-related functions of ELAN. (An analogous approach is used to produce the new digital audio disks now becoming available to stereophiles).

System integration is further enhanced by a variety of additional hardware and software features. Modem and Voice Recognition options add space-age stream-lining to the ELAN system. Interfaces and software for dictating machine control and for an electronic 'mouse' are standard. Tecmar goes further by providing other unique features:

- * Instant data and voice communication between offices
- * Call in from virtually any phone in the world; computer answers, accepts commands or supplies information
- * Voice control of computer from local or remote locations
- * Complete computer control of dictating machine
- * 'Bonus' functions: appointment reminders, talking clock/calendar, electronic mail, voice mail and more

The least expensive implementation of ELAN comes in a system configuration called The SECRETARY. In addition to permitting full ELAN participation (see below), it adds the capabilities of an electronic (data) mail station, a voice mail station, footpedal 'dictation machine' control for either a real or a simulated dictation recorder, and an interface that will later permit the attachment of an electronic 'mouse' - a small device that, when moved about the desktop, can provide control information to a computer.

Users on the ELAN network have a number of advantages. Printers, plotters or other peripherals anywhere on the network can work for any computer on the system; this is in contrast to a more usual one-on-one relationship. Similarly, memory storage resources on the system are also available; here, though, security measures such as file lockout and user-defined passwords can limit access to specific programs or data.

The SECRETARY (as well as the other versions of ELAN) adds voice capabilities to ELAN's data networking by converting voice into data (and back again). Spoken messages created via microphone from any station, can then be routed on command to any combination of other stations. ELAN also offers electronic (data) mail, which allows messages to be routed within the network to and from other systems.

Digitized voice messages can also be routed to (data) storage, then replayed for transcription in a computer approximation of dictating machines. The system also works with the Perlcorder™ X-02 or XR Dictation Systems, thru keyboard or footpedal control.

Finally, The SECRETARY includes an interface to permit the future addition of a mouse. The electronic 'mouse' is a small device that, when rolled across a desk or tabletop, communicates its movement to the computer. The computer then uses information about the mouse's position or movement just as it used keyboard input; with the mouse, commands or activities can, for example, be selected from a menu. These and other options can be user definable in the software.

In The MANAGER configuration, ELAN offers a number of additional functions involving the interconnection of the voice/data network to telephone lines. With an optional telephone handset, in fact, the computer becomes a telephone.

The MANAGER adds either a 0-300 baud (Bell 103 protocol) or 1200 baud (Bell 212A protocol, available at extra cost) direct connect modem, which uses a standard (Bell type RJ-11) modular connector for its link to the telephone line. This is immediately compatible with most single-line installations, as well as with most office phone systems (like Bell's Dimension™ system) that use standard key-less telephone instruments.

The modems are equipped with special auxiliary voice circuits, which permit them to pass either voice or data signals in both directions.

The modems also offer an auto-answer feature, which permit unattended response to incoming calls. At the user's option, this lets the system respond in the same way as an answering machine, delivering a spoken message and recording the incoming voice; alternatively, this permits the unattended reception of incoming data files, including electronic mail.

Furthermore, the modems are equipped for automatic calling, including both (DTMF) tone and pulse (for telephone circuits not equipped for tone dialing) outdialing options. Since the computer's memory can hold a virtually unlimited repertory of telephone numbers in its memory, this permits automatic dialing of any number of calls (at predetermined times for cost savings) for the exchange of voice or data traffic. In addition, this feature can operate unattended.

Another advanced feature of the ELAN telephone interface is it's ability to respond to dialing tones. This lets a caller issue commands to the system from any phone in the world equipped for tone dialing (or, optionally, with portable DTMF tone generator that is placed in the telephone mouthpiece). These commands can be used to leave or retrieve voice messages or trigger any number of specified system activities. Tecmar provides software to allow system users to specify access codes to prevent unauthorized or malicious access.

A special output signals when the phone is ringing; this can be used for automatic power-on control, or 'waking up' a 'sleeping' system. In addition, the telephone interface board allows for dumb terminal emulation, so the PC can interface with data bases provided by organizations such as Compuserve, Dow Jones and The Source.

The power of ELAN is further demonstrated because the modem also acts as a gateway to other ELAN networking systems.

Previously, computer speech recognition found limited use in specialized applications and remained more a laboratory curiosity than a functional technology.

Tecmar's developmental experience with computer speech recognition, however, has been nursed gradually to the impressive full-blown implementation of ELAN, The EXECUTIVE.

The EXECUTIVE adds computer recognition of spoken commands to the capabilities of ELAN. The system will respond to spoken commands just as it would to commands entered at the keyboard (or remotely entered with telephone dialing tones).

An executive might, for example, phone the computer to leave or retrieve messages, or to request specific information. The computer, in a spoken voice, could request the user's access code (or respond to questions regarding which of several options is desired). The executive has the option of keying an answer with the phone's tone dialing buttons, or of simply speaking the answer.

Software adds spoken reminders, clock, calendar, annotated text, more.

Tecmar includes a number of software utilities in the ELAN system package. Some of these, according to a company executive, are 'the stuff of science fiction'.

Time Management software uses spoken or video screen prompts to alert each individual to appointments.

Similarly, Message Management software makes sure that electronic (data) and voice mail messages are properly routed.

Clock/Calendar software provides visual or audible time and date.

Voice Management software oversees voice mail, voice messages and voice annotated text operations.

These software utilities are available from the computer keyboard (all versions - The SECRETARY, The MANAGER and The EXECUTIVE), remotely through the telephone dialing keypad (The MANAGER, or The EXECUTIVE versions only) or through voice recognition (The EXECUTIVE only).

ELAN also responds to remote terminals, with remote job execution (RJE), file lockout, password protection and server backup features available.

System requirements are very reasonable. Only one disk storage location is required on the network (Tecmar hard disk recommended). Other participating IBM Personal Computers require neither floppy nor hard disk drives. No dedicated servers are required. And the only hardware requirement for ELAN participation beyond the ELAN and IBM PC systems is interconnecting coaxial cable.



News: For Immediate Release

MACINTOSH 5 MBYTE CARTRIDGE WINCHESTER

Tecmar, Inc. (Cleveland) now offers a solution to the memory storage constraints available to users of Macintosh by providing a 5 MByte Removable Cartridge Winchester Subsystem. Flexibility, reliability, and capacity are the most asked about features of mass storage devices for personal computers today. With overwhelming success, Tecmar has answered these questions with the Removable Cartridge Winchester, and now makes it available for Macintosh. The Removable Cartridge Winchester combines the mass storage (5 MBytes) and speed of a conventional Winchesters with the removability, transportability, and flexibility of a floppy. Tecmar has successfully interfaced the removable cartridge Winchesters to the Applebus for use with Macintosh. It is provided in an enclosure that fits the Macintosh style and color.

It is one of the finest, low cost, high density rotating mass storage devices available and is using the technology that Tecmar has proven very viable with its use on other personal computers.

Apple Jack, the name of the Cartridge Winchester product, is part of Tecmar's newly announced Candy Apple complete line of peripherals for MacIntosh and other Applebus compatible computers.

Tecmar uses the Syquest drive and has just placed on order with Syquest totaling \$25,000,000.00.

For additional information, contact Tecmar, Inc., Personal Computer Products Division, 6225 Cochran Road, Cleveland (Solon), Ohio 44139; (216) 349-0600.



News: For Immediate Release

TECMAR'S CANDY APPLETM IEEE488 INTERFACE FOR MACINTOSHTM AND
APPLEBUSTM PERIPHERALS

Tecmar, Inc. (Cleveland) brings the intelligence of Apple'sTM
MacintoshTM and other ApplebusTM compatible computers, to bear
in laboratory, test and measurement, process control and other
applications where the IEEE488 interface is being used.

The Candy AppleTM IEEE488 interface implements the Intel 8291A
and 8292 integrated circuit set, providing MacintoshTM and other
computers with an ApplebusTM interface with talker, listener and
controller capabilities.

An independent power supply and attractive MacintoshTM compatible
enclosure are provided with the system. It plugs into the
ApplebusTM interface.

For additional information, contact Tecmar, Inc., Personal
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Ohio 44139; (216) 349-0600.



News: For Immediate Release

TELEPHONE/MODEM INTERFACE FOR MACINTOSHTM AND OTHER COMPUTERS WITH SERIAL INTERFACE

Tecmar, Inc. (Cleveland) is now expanding the communications capability of Apple's MacintoshTM and other computers utilizing a serial RS232 interface with its latest announcement of a telephone/modem interface.

One of the major factors contributing to the increased functionality of personal computers in the office is the additional communication (voice and data) capabilities being made available. Tecmar has implemented a telephone/modem subsystemTM for MacintoshTM and other computers with an RS232 serial port that provides a very easy-to-use, low cost, full feature telephone and modem interface. It can be used as a standard telephone with a handset or be connected to a telephone. It will decrease the amount of desk space required as well as add all the "smart" features now possible with microcomputers to a standard inexpensive telephone or by just adding a handset to this peripheral.

An independent power supply and attractive self contained enclosure are provided with the system. This is a 300/1200 baud (212 A compatible) modem with touch-tone decoding, pulse/tone automatic dialer and a full voice interface. This system can be used to enter data or commands remotely through the standard keypad of a telephone.

This peripheral, called Apple FritterTM when configured for the ApplebusTM, is part of Tecmar's new Candy AppleTM line of interfaces for MacintoshTM and other ApplebusTM peripherals.

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